

County Concrete & Construction Co., Inc.  
Washington County  
Columbia Falls, Maine  
A-43-71-J-N

**Departmental  
Findings of Fact and Order  
Air Emission License  
After-the-Fact**

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

A. Introduction

The Air Emission License for County Concrete & Construction Co., Inc. (CCC) of Columbia Falls, Maine expired on October 27, 2005. CCC has applied to renew their expired license permitting the operation of emission sources associated with their hot mix asphalt plant, concrete batch plant, and crushed stone and gravel facility.

B. Emission Equipment

**Asphalt Plant**

<u>Equipment</u>	<u>Process Rate (tons/hour)</u>	<u>Design Capacity Firing Rate</u>	<u>Control Devices</u>	<u>Date of Manufacture</u>
asphalt plant	250	86.2 MMBtu/hr, 0.5% sulfur #2 fuel oil	Baghouse	Pre-1973

**Concrete Plant**

<u>Equipment</u>	<u>Production Rate (cubic yards/hour)</u>	<u>Control Devices</u>
Concrete Batch Plant	10	baghouse

### Rock Crushers

<u>Designation</u>	<u>Powered</u>	<u>Process Rate (tons/hour)</u>	<u>Date of Manufacture</u>	<u>Control Device</u>
Jaw Crusher	electrical	150	unknown	Spray Nozzles
Secondary Cone	electrical	70	unknown	Spray Nozzles
Roll Crusher	electrical	50	unknown	Spray Nozzles

### Diesel Units

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Fuel Type</u>
Drive #1	1.2 MMBtu/hr	8.7 gal/hr	#2 fuel oil, 0.5% sulfur

#### C. Application Classification

The previous air emission license for CCC expired on October 27, 2005. A complete application was not submitted on time, therefore CCC is considered to be an existing source applying for an after-the-fact renewal. The facility is determined to be a minor source and the application has been processed through Chapter 115 of the Department's regulations.

## **II. BEST PRACTICAL TREATMENT**

#### A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for an after-the-fact renewal requires an analysis similar to a Best Available Control Technology analysis per Chapter 115 of the Department's regulations.

#### B. Asphalt Plant

The asphalt batch plant was manufactured prior to 1973 and is therefore not subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973.

The asphalt batch plant fires #2 fuel oil with a sulfur content not to exceed 0.5%. Fuel use shall not exceed 100,000 gal/year based on a 12 month rolling total.

To meet the requirements of BPT for the control of particulate matter (PM) emissions from the asphalt batch plant shall vent to a baghouse. Opacity from the asphalt batch plant baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

Based on the above hot mix asphalt plant process rate, the average emission rate from the asphalt baghouse shall be limited to 0.03 grs/dscf (6.7 lb/hr).

The performance of the baghouse shall be constantly monitored by either one of the following at all times the asphalt batch plant is operating:

1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, CCC shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

General process emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

**C. Concrete Batch Plant**

To meet the requirements of BPT for control of particulate matter (PM) emissions from the cement plant, particulate emissions shall be vented through a baghouse maintained for 99% removal efficiency. Visible emissions from the cement plant baghouse are limited to no greater than 10% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity.

All components of the concrete batch plant shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

**D. Rock Crushers**

The Jaw Crusher, Secondary Cone Crusher, and Roll Crusher are portable units with rated capacities of 150 TPH, 70 TPH, and 50 TPH respectively. Since the manufacture dates of the crushers are not known for certain, CCC agreed to perform initial performance tests in accordance with EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants. An initial performance test was performed on June 7, 2005.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, CCC shall maintain water sprays on the rock crushers and operate as needed to control visible emissions. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a six (6) minute block average basis.

**E. Drive #1**

Drive #1 is used primarily to power the primary Jaw Crusher. In a previous license CCC was given permission to fire the same fuel in Drive #1 as is fired in the asphalt batch plant. CCC does not have a separate tank to store diesel fuel on site and Drive #1 is the only internal combustion engine in use since the removal of Generator #2. It was previously determined that the increase in emissions from allowing CCC to fire higher sulfur fuel in Drive #1 was minimal and was offset by the discontinuation of Generator #2.

A summary of the BPT analysis for Drive #1 is the following:

1. Drive #1 shall be limited to 2,000 hours per calendar year of operation.
2. Chapter 106 regulates fuel sulfur content, however in this case a BPT analysis for SO<sub>2</sub> determined a more stringent limit of 0.5% was appropriate and shall be used.
3. The PM and PM<sub>10</sub> limits are derived from Chapter 103.
4. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
5. Visible emissions from Drive #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

**F. Stock Piles and Roadways**

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

G. General Process Emissions

Visible emissions from a general process (including conveyor belts) shall not exceed an opacity of 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

H. Facility Emissions

CCC shall be restricted to the following annual emissions:

**Total Licensed Annual Emissions for the Facility**  
(used to calculate the annual license fee)

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Asphalt Plant	0.5	0.5	3.5	2.4	8.1	0.2
Drive #1	0.2	0.2	0.1	5.3	1.1	0.4
<b>Total TPY</b>	<b>0.7</b>	<b>0.7</b>	<b>3.6</b>	<b>7.7</b>	<b>9.2</b>	<b>0.6</b>

**III. AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Modeling and monitoring are not required of a renewal if the total emissions of any pollutant released do not exceed the following:

<b><u>Pollutant</u></b>	<b><u>TPY</u></b>
PM	25
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	100
CO	250

Based on the above total facility emissions, CCC is below the emissions level required for modeling and monitoring.

## **ORDER**

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-43-71-J-N, subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

### **STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions. [MEDEP Chapter 115]
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive

- dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353. [MEDEP Chapter 115]
  - (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
  - (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
  - (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
  - (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
  - (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
  - (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
    - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
      1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
      2. pursuant to any other requirement of this license to perform stack testing.
    - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

- C. submit a written report to the Department within thirty (30) days from date of test completion.  
[MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- [MEDEP Chapter 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.  
[MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall



prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

## SPECIFIC CONDITIONS

### (16) Asphalt Plant

- A. Emissions from the hot mix asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks. [MEDEP Chapter 115, BPT]
- B. The performance of the baghouse shall be constantly monitored by either one of the following at all times the asphalt plant is operating [MEDEP Chapter 115, BPT]:
  1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, CCC shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
  2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the asphalt plant is operating with insufficient control and corrective action shall be taken immediately.
- C. To document maintenance of the baghouse, the license shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the asphalt plant location. [MEDEP Chapter 115, BPT]
- D. Opacity from the baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]
- E. General process emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101]
- F. Fuel use records and receipts for the asphalt plant shall be maintained for at least six years and made available to the Department upon request. [MEDEP Chapter 115, BPT]
- G. CCC shall be limited to the use of 100,000 gal/year of #2 fuel oil, with a sulfur content not to exceed 0.5% in the asphalt plant. Emissions from the baghouse shall not exceed the following [MEDEP Chapter 115, BPT]:

Pollutant	grs/dscf	lb/hr
PM	0.03	6.70
PM <sub>10</sub>	-	6.70
SO <sub>2</sub>	-	43.41
NO <sub>x</sub>	-	30.00
CO	-	100.00
VOC	-	2.05

- H. CCC may process up to 10,000 cubic yards of soil contaminated by gasoline or #2 fuel oil per year without prior approval from the Department. This limit may be exceeded with written authorization from the Department. The plant owner or operator shall notify the commissioner at least 24 hours prior to processing the contaminated soil and specify the contaminating fuel and quantity, origin of the soil and fuel and the disposition of the contaminated soil. [MEDEP Chapter 115, BPT]
- (17) **Concrete Batch Plant**
- A. Particulate emissions from the cement plant shall be vented through a baghouse and all components of the batch plant shall be maintained so as to prevent PM leaks. [MEDEP Chapter 115, BPT]
  - B. To document maintenance of the cement plant baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the concrete batch plant location. [MEDEP Chapter 115, BPT]
  - C. Opacity from the cement plant baghouse is limited to no greater than 10% on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. CCC shall take corrective action if visible emissions from the baghouse exceed 5% opacity. [MEDEP Chapter 101]
  - D. PM emissions from the concrete batching operation shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101]
- (18) **Rock Crushers**
- A. CCC shall maintain spray nozzles for particulate control on all rock crushers and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six (6) minute block average basis. [MEDEP Chapters 115 (BPT) and 101]
  - B. CCC shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
  - C. CCC shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the rock crushers. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
  - D. The crushers shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation. [MEDEP Chapter 115, BPT]

(19) **Diesel Unit**

- A. CCC shall limit Drive #1 to 2,000 hours per calendar year of operation. An hour meter shall be maintained and operated on Drive #1. [MEDEP Chapter 115, BPT]
- B. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Drive #1	0.14	0.14	0.06	5.29	1.14	0.42

- C. Visible emissions from Drive #1 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

(20) **Parts Washer**

Parts washers at CCC are subject to MEDEP Chapter 130.

- A. CCC shall keep records of the amount of solvent added to each parts washer. [MEDEP Chapter 115, BPT]
- B. The following are exempt from the requirements of Chapter 130 [MEDEP Chapter 130]:
1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
  2. Wipe cleaning; and,
  3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to remote reservoir cold cleaning machines that are applicable sources under Chapter 130.
1. CCC shall attach a permanent conspicuous label to each unit summarizing the following operational standards [MEDEP Chapter 130]:
    - (i) Waste solvent shall be collected and stored in closed containers.
    - (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
    - (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
    - (iv) The cold cleaning machine shall not be exposed to drafts greater than

40 meters per minute when the cover is open.

- (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
  - (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
  - (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.
  - (viii) Work area fans shall not blow across the opening of the degreaser unit.
  - (ix) The solvent level shall not exceed the fill line.
2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches.  
[MEDEP Chapter 130, BPT]

(21) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.  
[MEDEP Chapter 101]

(22) **General Process Sources**

Visible emissions from any general process source shall (including conveyor belts) not exceed an opacity of 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.  
[MEDEP Chapter 101 and Chapter 115, BPT]

(23) **Equipment Relocation** [MEDEP Chapter 115, BPT]

- A. CCC shall notify the Bureau of Air Quality, by a written notification at least 48 hours prior to relocation of any equipment carried on this license. The notification shall be sent to the address below or to a Department Regional Office:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Equipment relocation notification can also be done on-line with e-notice at [www.maine.gov/dep/air/compliance/forms/relocation](http://www.maine.gov/dep/air/compliance/forms/relocation).

The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment. Written notice may be sent by mail, facsimile (fax), or e-mail.

- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (24) CCC shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115, BPT]
- (25) CCC shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).
- (26) **Payment of Fees**  
CCC shall pay the annual air emission license fee within 30 days of April 30<sup>th</sup> of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAVID P. LITTELL, COMMISSIONER

**The term of this license shall be five (5) years from the signature date above.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 11/16/06

Date of application acceptance: 12/11/06

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Lynn Ross, Bureau of Air Quality.